

capable of responding to a single function operating on the logically connected horizons data set with a common response.” Van Bemmell does not disclose this limitation. Van Bemmell is not directed toward a logically connected horizons data set capable of responding to a single function with a common response. Instead, Van Bemmell is directed toward identifying faults using horizons, which does not form a “logically connected horizons data set” within the meaning of claim 14.

It is well established that a prior art reference cannot anticipate a claim unless the reference discloses each and every element of the claimed invention arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452,1458 (Fed. Cir. 1984). Accordingly, Van Bemmell does not anticipate claim 14.

B. The Rejections Under 35 U.S.C. § 103

In paragraph 5 of the Office Action, claims 1-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable in view of Van Bemmell. Applicants respectfully submit that these claims are not obvious as set forth below. The Patent Office “has the burden of showing a *prima facie* case of obviousness.” *In re Mayne*, 104 F.3d 1339, 1341 (Fed. Cir. 1997).

Claim 1 is directed to “interpreting each overlapping component” and “logically associating each overlapping component with the interpretation.” Van Bemmell does not disclose or teach these limitations. As the Examiner noted, “[I]acking is the specific use and mention of ‘overlapping’ type of faults.”

Van Bemmell is directed to solving a different type of problem than that solved by claim 1, as set forth in the attached Declaration of Robert Baker, (Exhibit A, ¶¶ 6-10). Thus, claim 1 is not obvious in view of Van Bemmell.

Moreover, Van Bemmell does not teach or disclose how to interpret overlapping components of a repeated surface, and the invention of claim 1 addresses this long felt need and unsolved need, (Exhibit A, Declaration of Robert Baker, ¶¶ 3-5). Such “secondary considerations” must always be considered when present in making a determination of obviousness. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538 (Fed. Cir. 1983). Thus, neither claim 1, nor any claims pending therefrom, are rendered obvious by Van Bemmell. Applicants submit that independent claim 1 and dependent claims 2-13 are allowable in view of Van Bemmell.

Additionally, in view of the fundamental differences between faults and horizons, the disclosure in Van Bemmell does not enable a person skilled in the geophysical data processing and interpretation art to practice the inventions claimed in 1-13 of the present Application (Exhibit A, Declaration of Robert Baker, ¶¶ 7-10). Prior art references relied upon in an obviousness rejection must enable a person of ordinary skill in the art to practice the claimed invention without undue experimentation. *Beckman Instruments, Inc. v. LKB Produkter AB*, 892 F.2d 1547, 1551 (Fed. Cir. 1989). Thus, Debiesse does not render claims 18-21 obvious. Accordingly, Van Bemmell does not render claims 1-13 obvious.

Patent Office Rule 104(c)(2) (37 C.F.R. § 104(c)(2)) requires that ‘in rejecting claims for . . . obviousness, the examiner must cite the best references at his or her command’ (emphasis added). In the first full paragraph on page 3, the Office Action states that “the various types of faults were well known and would have been considered for inclusion in the Van Bemmell, et al fault modeling system and computerized methods.” The Office Action cites no prior art in support of the statement. Accordingly, it appears that the Examiner is relying upon facts within

his knowledge, as provided by 37 C.F.R. § 104(c)(3). Applicants therefore respectfully request an Examiner's affidavit, pursuant to 37 C.F.R. § 104(d)(2) containing the following information:

- a. all facts within the personal knowledge of the Examiner regarding the above quoted statement;
- b. all tests or experiments which the Examiner has directly witnessed or participated in involving the Van Bemmeler fault modeling system; and
- c. all data within the possession, custody or control of the Examiner relating to the tests or experiments identified in response to item b, above.

Claims 3 and 4 were rejected on the basis that alphanumeric computer file names do not involve the concept of invention. Claims 3 and 4 are not claiming the generic use of alphanumeric computer files names. Instead, claims 3 and 4 are directed toward using a predetermined pattern of alphanumeric characters for a horizon name and managing a repeated surface on the basis of the content of the assigned horizon name. Thus, claims 3 and 4 are directed to use of alphanumeric computer file names for a specific purpose and do involve the concept of invention. Similarly, while Van Bemmeler discloses alphanumeric reference numbers in the figures, Van Bemmeler does not disclose using a predetermined pattern of alphanumeric characters nor does it disclose managing data based upon the content of a computer data file's name. Accordingly, Applicants submit that claims 3 and 4 involve the concepts of invention. For these additional reasons, Applicant asserts that claims 3-4 are not rendered obvious by Van Bemmeler.

Claims 5-8 were rejected on the basis that claims drawn to usage of a computer keyboard and pointing device and their combination for entry of data and user selections into a computer system were notoriously well known components of seismic modeling computer graphic workstations. Thus, the Office Action alleges that these claims do not involve the concepts of invention.


Claims 5-8 are not claiming the generic use of a computer keyboard and pointing device. Instead, claims 5-8 are directed toward the specific use of a pointing device and computer keyboard with the method of claim 1. Accordingly, Applicants submit that claims 5-8 involve the concepts of invention. Accordingly, for these additional reasons, claims 5-8 are not rendered obvious in view of Van Bemmell.

II. CONCLUSION

In view of the forgoing, Applicants respectfully request a Notice of Allowance for pending claims 1-14.

Respectfully submitted,

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CERTIFICATE OF MAILING 37 CFR 1.8(a)

I hereby certify that a copy of Response To Office Action, along with any referred to as attached or enclosed is being deposited with the United States Postal Service as First Class mail, postage prepaid in an envelope addressed to: Honorable Assistant Commissioner for Patents, Washington, D.C. 20231, on August 8, 2005.

